

OIB - HU-25C Guardian 09/30/15 Science Report

Aircraft:

[HU-25A Guardian #525](#) ([See full schedule](#))

Date:

Wednesday, September 30, 2015

Mission:

OIB

Mission Location:

Thule, Greenland

Mission Summary:

Mission: Falcon North-Central Gap 01 (priority: high)

This mission is a shortened version of the Spring 2015 mission of the same name. The primary difference is that we reduced the number of grid lines crossing the upper Zachariae and 79N Glaciers from six to two.

Weather today was quite poor again, with northwestern Greenland completely obscured by clouds associated with a low-pressure system which came ashore overnight from Baffin Bay. A more powerful low-pressure system is forecast to approach the area during the day today and overnight, and it is likely that this system will close the Thule airport for at least portions of the next two days. Thus today may be our last flight opportunity until Monday. Fortunately, strong offshore flow and clear skies prevailed over much of northeast Greenland, so we selected this high-priority flight for this morning.

All instruments performed well today. The cloudiness across northwestern Greenland prevented our instruments from collecting more than isolated data between Thule and the main ridgeline of the ice sheet, but we successfully collected data for all but a small portion of the eastern half of the flightline. An isolated patch of cirrus cloud partially obscured our north-south grid lines over the upper Zachariae and 79N Glaciers, but we were able to obtain permission from controllers to descend to 31,000', which placed us beneath the cirrus, and thus we lost only a small southern portion of the western grid line to this diabolically-located cloud. We flew the outbound transit at 35,000' MSL, and the inbound leg at 38,000' MSL, and observed good performance from all sensors at all three altitudes, when clear skies were underneath.

We conducted a ramp pass at 2000' MSL.

Data volumes:

DMS: 15.0 Gb

Narrow Swath ATM: 26 Gb

FLIR: 1.5 Gb

total data collection time: 3.6 hrs

Images:

Map of Falcon - North-Central Gap 01



[Read more](#)

Zachariae Glacier



[Read more](#)

79-North Glacier



[Read more](#)

Submitted by:

John Sonntag on 09/30/15

Related Flight Report:

HU-25C Guardian 09/30/15

Flight Number:

OIB2015 Arctic North Central Gap 01

Payload Configuration:

ATM & DMS

Nav Data Collected:

No

Total Flight Time:

3.9 hours

Submitted by:

Luci Crittenden on 09/30/15

Flight Segments:

From:	BGTL	To:	BGTL
Start:	09/30/15 11:25 Z	Finish:	09/30/15 15:17 Z
Flight Time:	3.9 hours		
Log Number:	15F005	PI:	John Woods
Funding Source:	Thomas Wagner - NASA - SMD - ESD Cryosphere & International Polar Year		
Purpose of Flight:	Science		
Comments:	OIB completed the North Central Gap 01 mission out of Thule today. The aircraft has turned and is currently on it's second mission for today. Weather at Thule is expected to get worse later this afternoon. Weather forecast late this evening/early am tomorrow will determine if we are able to fly another data flight tomorrow.		

Flight Hour Summary:

	15F005	16F002
Flight Hours Approved in SOFRS	100	
Flight Hours Previously Approved		67.4
Total Used	32.6	65.3
Total Remaining		2.1

16F002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
10/05/15	OIB2015 Arctic Sea Ice Central	Science	3.6	3.6	63.8
10/05/15	OIB2015 Arctic Sea Ice East	Science	3.8	7.4	60
10/06/15	OIB2015 Arctic Ice-Sat2 North	Science	4	11.4	56
10/07/15	OIB2015 Arctic Transit Thule to Kangerlussuaq	Transit	2	13.4	54
10/08/15	OIB2015 Arctic Southwest Coastal A	Science	3.8	17.2	50.2
10/08/15	OIB2015 Arctic Thomas-Jakobshavn 01	Science	3.7	20.9	46.5
10/09/15	OIB2015 Arctic Umanaq B	Science	3.9	24.8	42.6

10/13/15	OIB2015 Arctic Jakobshavn Equip Store	Science	2.9	27.7	39.7
10/13/15	OIB2015 Arctic Southeast Coastal A	Science	3.6	31.3	36.1
10/18/15	OIB2015 Arctic Southeast Coastal B	Science	4.1	35.4	32
10/19/15	OIB2015 Arctic Helheim-Kangerdlugussuaq	Science	3.7	39.1	28.3
10/19/15	OIB2015 Arctic Helheim-Kangerdlugussuaq Gap B	Science	3.9	43	24.4
10/20/15	OIB2015 Arctic Jakobshavn Mop-Up	Science	3.7	46.7	20.7
10/20/15	OIB2015 Arctic Southwest Coastal B	Science	3.7	50.4	17
10/21/15	OIB2015 Arctic Southwest Coastal C	Science	3.4	53.8	13.6
10/21/15	OIB2015 Arctic K-EGIG-Summit	Science	3.7	57.5	9.9
10/22/15	OIB2015 Arctic Mopup South	Science	2	59.5	7.9
10/22/15	OIB2015 Arctic Ferry BGSF-CYYR	Ferry	2.2	61.7	5.7
10/23/15	OIB2015 Arctic Ferry CYYR-KRIC	Ferry	3.3	65	2.4
10/23/15	OIB2015 Arctic Ferry CYYR-KRIC	Ferry	0.3	65.3	2.1

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Page Last Updated: April 22, 2017

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Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
09/15/15	OIB #1	Check	2.7	2.7	97.3
09/20/15	OIB #2, 3, 4	Ferry	2.7	5.4	94.6
09/21/15	OIB #2, 3, 4	Ferry	2.3	7.7	92.3
09/21/15	OIB #2, 3, 4	Ferry	2	9.7	90.3
09/23/15	OIB2015 Arctic North Central Gap 02	Science	3.9	13.6	86.4
09/24/15	OIB2015 Arctic Northwest Coastal A	Science	3.7	17.3	82.7
09/25/15	OIB2015 Arctic Northwest Coastal B	Science	3.8	21.1	78.9
09/28/15	OIB2015 Arctic Sea Ice West	Science	3.7	24.8	75.2
09/30/15	OIB2015 Arctic North Central Gap 01	Science	3.9	28.7	71.3
09/30/15	OIB2015 Arctic Zachariae-79N	Science	3.9	32.6	67.4